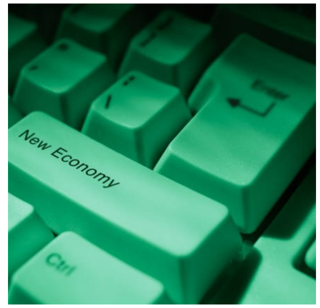

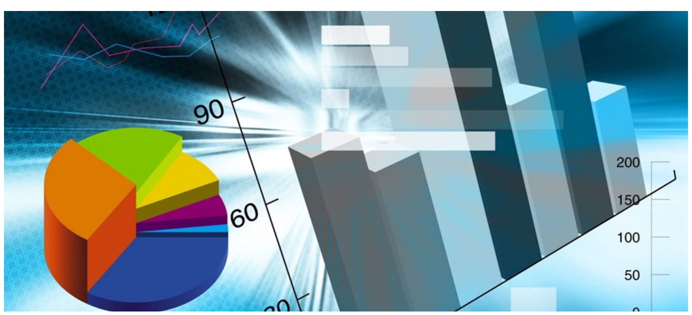

PMPA

PRECISION MACHINED PRODUCTS ASSOCIATION

May 2025

Economic Report

ITR ECONOMICS

Table of Contents

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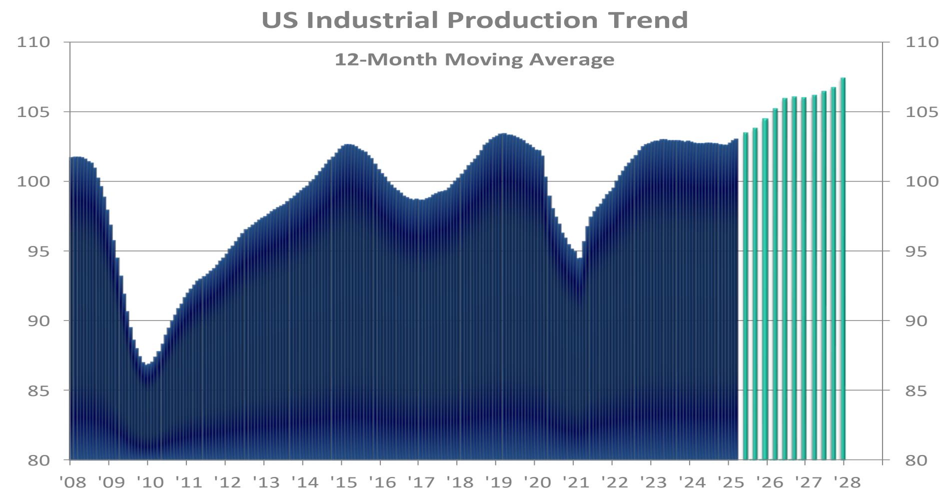
overview

Tariffs, geopolitical conflict, interest rates, inflation, stock market volatility, and more are on the minds of businesses and consumers, leading to elevated uncertainty. As we parse the various headwinds and tailwinds, we are maintaining our outlook for macroeconomic growth in the coming years. A number of leading indicators, including rise in the US Total Industry Capacity Utilization Rate and ITR Leading Indicator™ signal that there will be rise in 2025 and into at least 2026. However, in general, 2025 and 2026 will be muted relative to the prior cycle, and we want to emphasize that underneath the headline numbers, there are divergent outcomes. Knowing your market's trends is key.

Rising real incomes, as well as our expectations for generally rising consumer prices, suggest that Retail Sales will rise in the coming years. Not all consumer demographics are performing the same though – a large portion of consumer expenditures are made by high-income brackets. Businesses who cater to lower-income brackets, who on net are struggling to build up savings as prices generally rise and long-term interest rates stay sticky, may underperform relative to companies to cater to higher-income consumers. Consider who your target demographics are when making business decisions.

Businesses are also in a stable position with elevated corporate profits, and business confidence metrics are slowly rising. US Nondefense Capital Goods New Orders, a proxy for B2B spending, is in a recovery trend and poised to rise in the rest of 2025 and throughout at least 2026, though growth will be muted relative to recent cycles. Businesses are contending with still-elevated borrowing costs, which will limit some capex. However, we urge clients to avoid trying to time a low for borrowing costs and instead invest in new capacity whenever it would most benefit their business. Our long-range expectation is for interest rates and inflation to generally rise given the multitude of inflationary drivers present in this cycle.

Construction trends differ from the macroeconomy and much of the industrial sector. The residential sector, which leads the macroeconomy, is undergoing very mild decline due in part to persistent affordability constraints. While these constraints are likely to persist, we expect mild rise in US Single-Unit Housing Starts in 2026 and 2027 given the underlying demand for more housing. Multi-Unit Housing is facing other challenges and is likely to stay well below the stimulus and low-interest-rate-fueled 2022 level of activity. This is due to current interest rate headwinds and greater financial strains for those on the lower or middle end of the income spectrum, who predominantly rent multi-unit housing. The nonresidential construction sector, which lags the macroeconomy, will generally decline



mildly this year and next due in part to elevated interest rates. However, be prepared for shifts within the overall nonresidential sector, with some segments of institutional construction, like education, lagging overall nonresidential outperforming and others that have been outperforming, like manufacturing, facing the impact of government incentives wearing off.

Tariffs are at the forefront of the minds of businesses and consumers alike. At ITR Economics, we are apolitical and analyze policy solely due to its economic implications. Tariffs create winners and losers in the marketplace; some will face pain, while others will benefit from the shift in the competitive landscape. Where does your business fall within this spectrum? Consider your direct exposure to tariffs and the upstream and downstream effects on your business.

While each business's situation is unique, there are some recommendations we think apply broadly. The first is to focus on efficiency: Pricing pressures will increase in the coming years for both inputs and labor, which could cut into profits. Second, if you plan to finance business investments, focus more on the payback period rather than trying to time a low in interest rates, as they are likely to remain sticky. Our third recommendation is that you factor a challenging 2030s cyclical downturn into your longer-term plans. There is still time to position your business and personal finances to prepare for those tougher times, but the runway is rapidly shortening. Stagnation is terminal – growth requires constant attention and change.

Terminology & Methodology

Data Trends:

Monthly Moving Total (MMT) vs Monthly Moving Average (MMA):

Totals are used when it makes sense to add the data together, as with units sold or total dollars spent. Averages are used when the data cannot be compounded, such as with an index, percent, price level, or interest rates.

3MMT/A and 12MMT/A:

A 3-month or 12-month moving total/average is the total/average of the monthly data for the most recent 3 and 12 months, respectively. The 3MMT/A illustrates the seasonal changes inherent to the data series. The 12MMT/A removes seasonal variation in order to derive the underlying cyclical trend. It is also referred to as the annual total or annual average.

Rates-of-Change:

A rate-of-change figure is the ratio comparing a data series during a specified time period to the same period one year ago. **Rates-of-change** are expressed in terms of the **annual percent change in a 12MMT/A, 3MMT/A, and actual monthly data.**

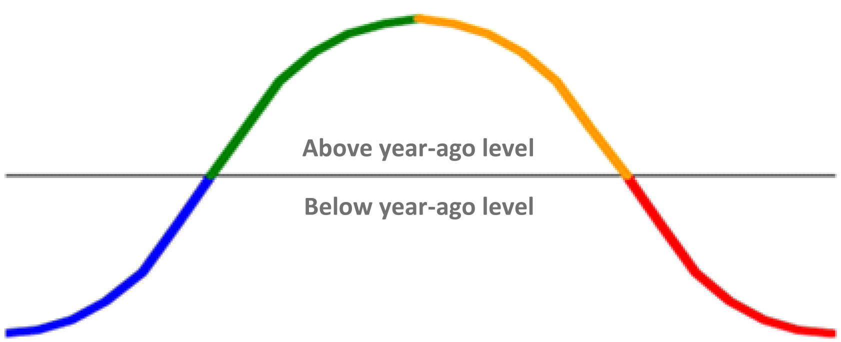
Rates-of-change reveal whether activity levels are rising or falling compared to last year. A rate-of-change trend illustrates and measures cyclical change and trends in the data.

ITR Economics' three commonly used rates-of-change are the **1/12**, **3/12**, and **12/12**, which represent the year-over-year percent change of a single month, 3MMT/A, and 12MMT/A (respectively).

A rate-of-change above 0 indicates the data is higher than one year prior, while a rate-of-change below 0 indicates the data is below one year earlier.

Business Cycle:

The data trends and rates-of-change identify positions in the business cycle. Those positions are:



Accelerating Growth (B): 12/12 is rising and is above zero; the data trend is accelerating in its ascent and is above the year-ago level. This is the second positive phase of the business cycle.

Recovery (A): 12/12 is rising but is below zero; the data trend is below the year-ago level and is either heading toward a low or is in the early stages of rise. This is the first positive phase of the business cycle.

Slowing Growth (C): 12/12 is declining but remains above zero; the data trend ascent is slowing or has stopped its rise, but it is still above the year-ago level. This is the first negative phase of the business cycle.

Recession (D): 12/12 is declining and is below zero; the data trend is below the year-ago level and the rate of decline is increasing. This is the second and final negative phase of the business cycle.

Business Cycle

Page Number	Industry	Current 12/12	Phase	2025	2026	2027
4	US Industrial Production Index	0.3%	B	1.4%	1.5%	1.3%
5	North America Light Vehicle Production	-1.7%	D	-3.1%	3.2%	0.6%
6	US Aircraft and Parts Production Index	-2.7%	D	2.0%	3.5%	2.5%
7	US Housing Starts	-4.5%	A	-1.5%	7.4%	2.0%
8	US Heavy-Duty Truck Production Index	-9.5%	D	-9.5%	12.2%	1.2%
9	US Medical Equipment and Supplies Production Index	-4.5%	D	-2.3%	3.3%	0.0%
10	US Machinery New Orders	-0.9%	A	2.4%	4.1%	0.4%
11	US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production Index	-0.8%	D	0.3%	7.0%	1.1%

A RECOVERY

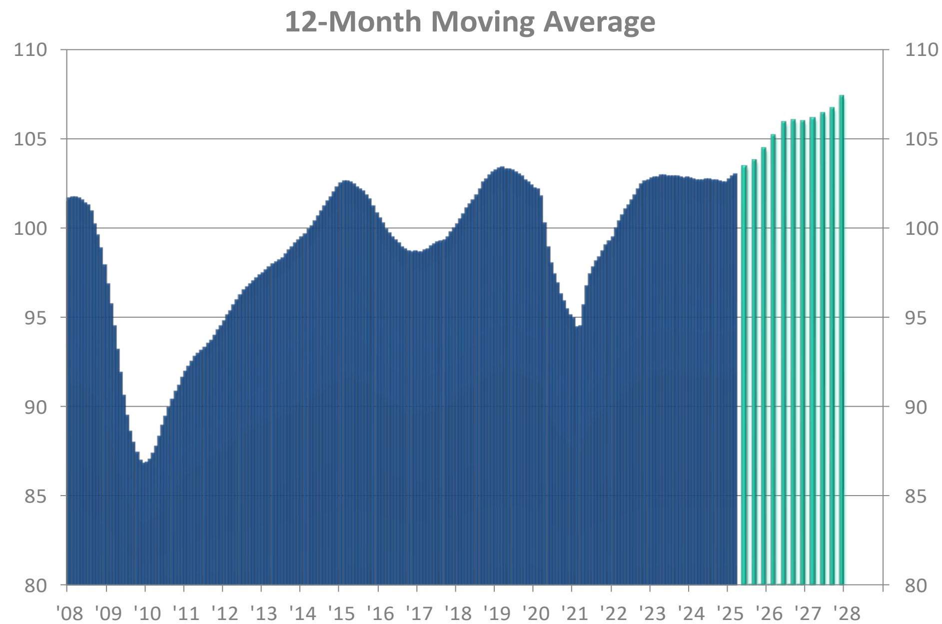
B ACCELERATING GROWTH

C SLOWING GROWTH

D RECESSION

US Industrial Production Index

Production Breaking Out of Plateau; Outlook Supported Despite Policy Risks



Industry Outlook

2025: 1.4%

2026: 1.5%

2027: 1.3%

Outlook & Supporting Evidence

- US Industrial Production rose 0.3% in the 12 months through March compared to the year-ago level. Trends in the ITR Leading Indicator™ and trends in the capacity utilization rate support the view that Production will continue to gain momentum. Annual Production will generally rise through at least 2027, with growth rates in the low single digits.
- Upcoming growth will be moderate in comparison to the stimulus-backed surge of the last cycle. Some challenges such as a tight labor market and inflation will likely remain. Consider making efficiency improvements.
- Trade policy instability and high interest rates pose risks to capital spending and consumer demand. The US Economic Policy Uncertainty Index is on par with early-pandemic levels.

Phase & Amplitudes

Phase B

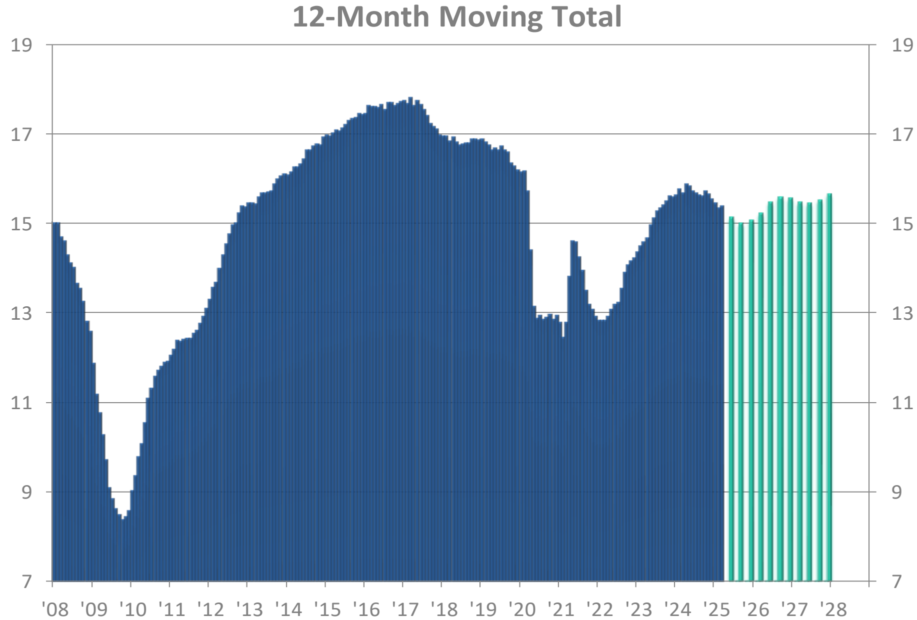
Accelerating Growth

March 2025 Annual Growth Rate (12/12): 0.3%

March 2025 Annual Average (12MMA): 103.0

North America Light Vehicle Production

Forecast Lowered; Trade Tensions and Interest Rates Will Weigh on Market Into Late 2025



Industry Outlook

2025: -3.1%

2026: 3.2%

2027: 0.6%

Outlook & Supporting Evidence

- North American Light Vehicle Production totaled 15.4 million units in the 12 months through March, down 1.7% from the year-ago level. Auto supply chains rely heavily on cross-border trade and are significantly exposed to recent US tariffs. Consequently, we lowered the annual Production outlook between 4.6% and 5.4% for the next three year-ends.
- Annual Production will decline into the latter half of this year as still-elevated interest rates, trade tensions, and potentially higher prices drag on vehicle demand. Similar to our last forecast, we expect annual Production to rise in 2026 and then trend relatively flat in 2027.
- Anticipated US economic growth and relatively well-positioned middle- and upper-income consumers will aid in stabilizing demand and driving this expected rise.

Phase & Amplitudes

Phase D

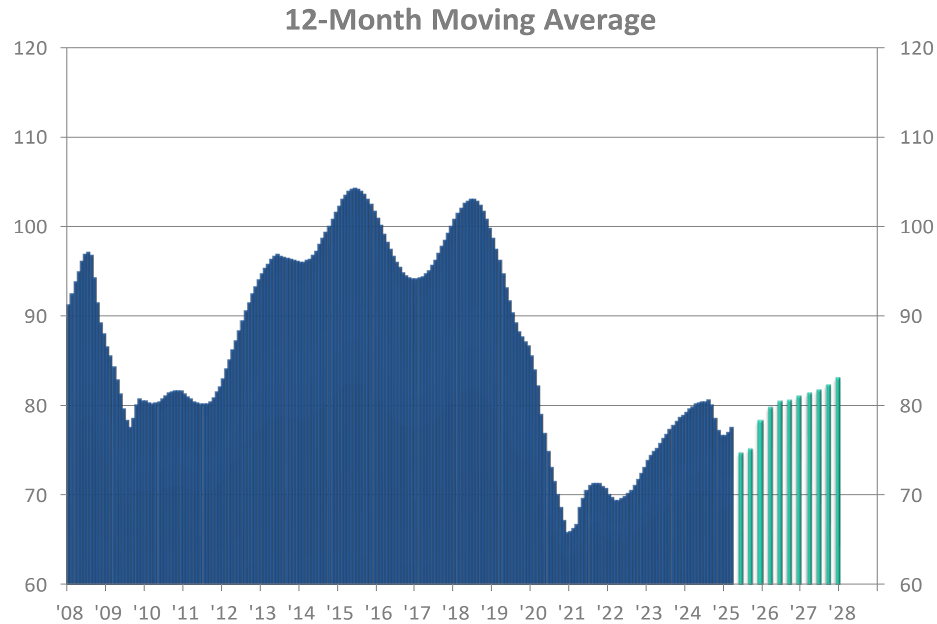
Recession

March 2025 Annual Growth Rate (12/12): -1.7%

March 2025 Annual Total (12MMT): 15.4 million units

US Aircraft and Parts Production Index

Strong Demand and Rising Deliveries Support Outlook for Rise From Mid-2025 Through 2027



Industry Outlook

2025: 2.0%

2026: 3.5%

2027: 2.5%

Outlook & Supporting Evidence

- US Aircraft and Parts Production activity in the 12 months through March was 2.7% below the same period one year ago. Annual Production will reach a near-term low and then generally rise through at least 2027.
- Boeing deliveries have rebounded, with 1Q25 marking a 57% increase from 1Q24. This is a positive sign, as supply-side issues have been a constraint for this market. Demand for air travel and new aircraft remains strong, with Boeing reporting a substantial backlog of firm orders.
- Tariff-related risks to Production include potential input material disruptions, rising costs, and the threat of retaliatory tariffs that could dampen export demand.

Phase & Amplitudes

Phase D

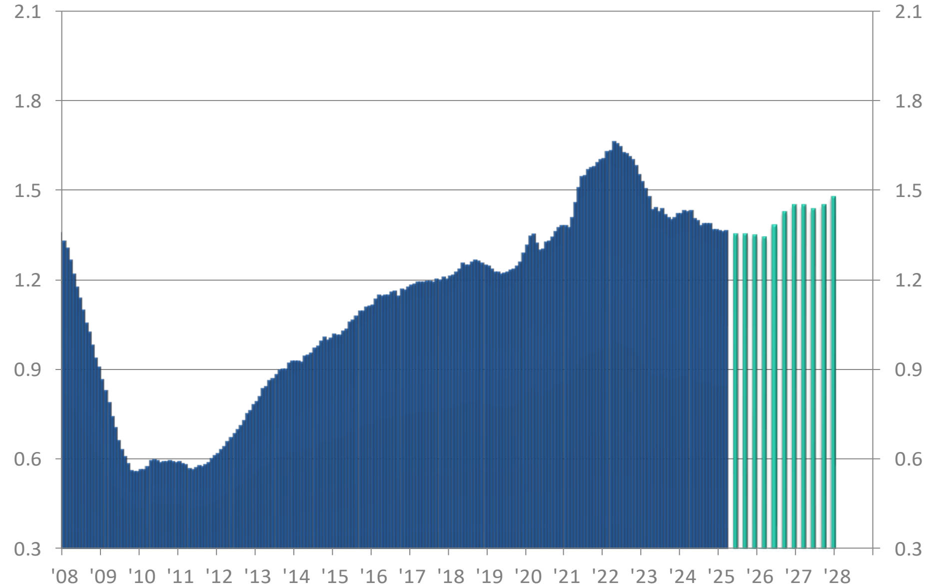
Recession

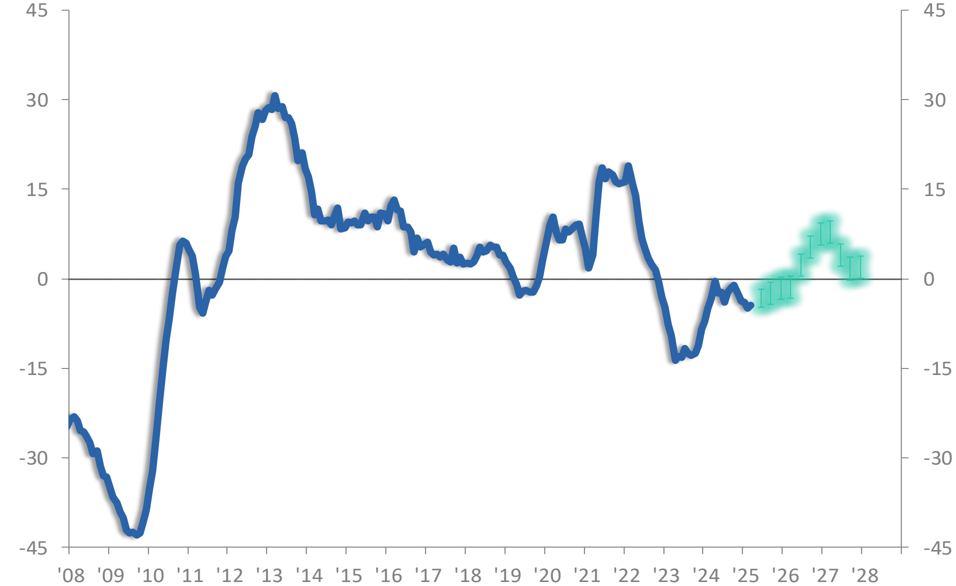
March 2025 Annual Growth Rate (12/12): -2.7%

March 2025 Annual Average (12MMA): 77.6

US Housing Starts

Forecast Downgraded; Starts to Plateau Into Early 2026 Amid Headwinds





Industry

Outlook

2025: -1.5%

2026: 7.4%

2027: 2.0%

Outlook & Supporting Evidence

- We lowered our outlook for US Single-Unit Housing Starts due to recent weak permits, low affordability, heightened economic uncertainty, and an uptick in vacancy. The net impact to US Housing Starts was a downgrade of 3.0%, 0.9%, and 2.5% for 2025, 2026, and 2027, respectively. Annual Total Starts will plateau into early 2026, then rise through at least 2027.
- Rising Rental Vacancy Rates suggest excess capacity and muted investor interest in the multi-family market, although trends vary by region.
- Construction materials costs and labor costs are rising. Still-elevated interest rates and frequently changing trade policy pose further risks to costs. These factors are likely to weigh on homebuilder sentiment.

Phase & Amplitudes

Phase A

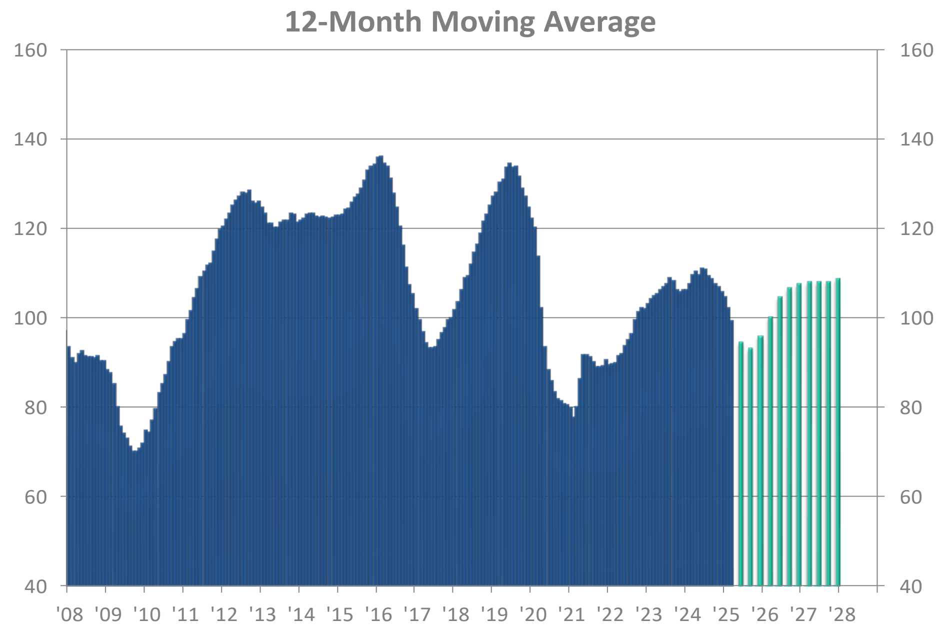
Recovery

March 2025 Annual Growth Rate (12/12): -4.5%

March 2025 Annual Total (12MMT): 1.4 million units

US Heavy-Duty Truck Production Index

Forecast Lowered on Trade-Related Downsides and Flat Freight; Recovery Expected in Late 2025



Industry Outlook

2025: -9.5%

2026: 12.2%

2027: 1.2%

Outlook & Supporting Evidence

- Annual US Heavy-Duty Truck Production was down 9.5% from one year ago as of March. Stagnation in freight volumes, interest rate headwinds, and economic uncertainty are weighing on truck demand. These factors, in addition to downward revisions to our outlooks for industrial production in Canada and Mexico, necessitated a forecast revision. We lowered the annual Production forecast by 11.8% for 2025 and by 5.9% for 2026 and 2027.
- Annual Production will decline into the latter half of 2025. As economic activity improves and the movement of goods increases as the year progresses, we will likely see more confidence to invest in new trucks near the end of 2025. Production will then rise from late 2025 through 2026 before plateauing for much of 2027.

Phase & Amplitudes

Phase D

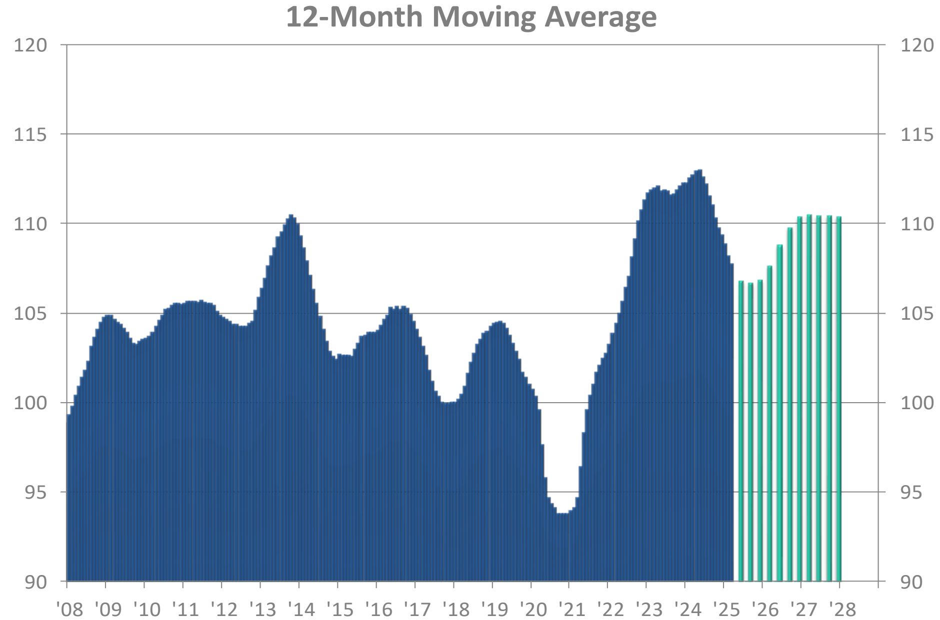
Recession

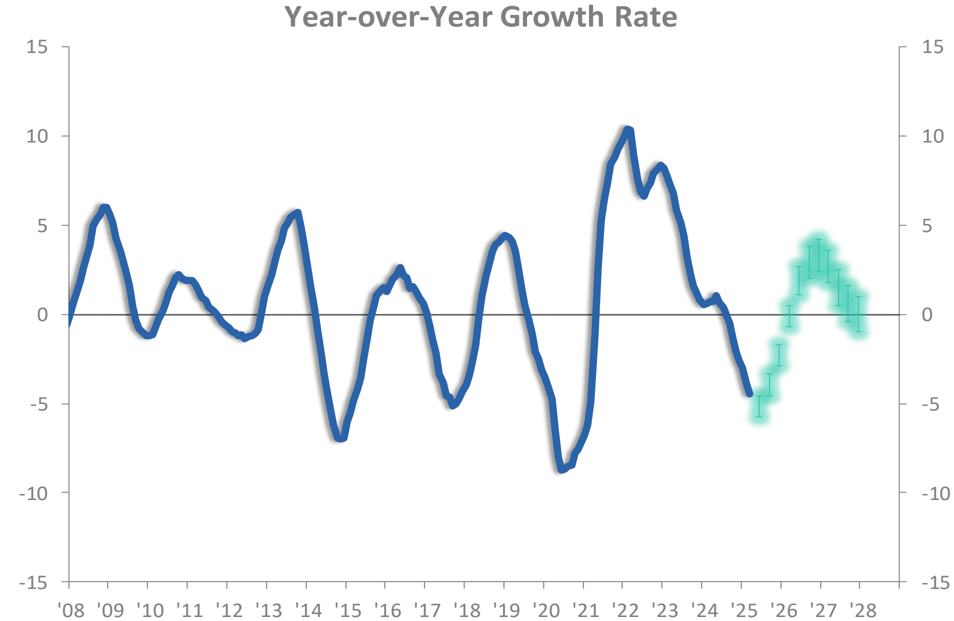
March 2025 Annual Growth Rate (12/12): -9.5%

March 2025 Annual Average (12MMA): 99.2

US Medical Equipment and Supplies Production Index

Forecast Revised Mildly; Aging Population and Growing Economy to Drive Production Rise





Industry Outlook

2025: -2.3%

2026: 3.3%

2027: 0.0%

Outlook & Supporting Evidence

- US Medical Equipment and Supplies Production was 4.5% lower in the 12 months through March compared to the prior year. Despite early signs of recovery in end-market services, recent Production results suggest annual Production will remain flatter than previously anticipated over the next couple of quarters. We mildly lowered the forecast to account for the probability of a more sluggish recovery trend.
- We still anticipate annual Production will rise from the second half of 2025 through 2026. Annual Production will plateau in 2027.
- The trajectory for Production through 2027 is generally positive, due in part to an aging population and a growing economy. Strength in inflation-adjusted dental spending also points to stable demand for elective medical supplies.

Phase & Amplitudes

Phase D

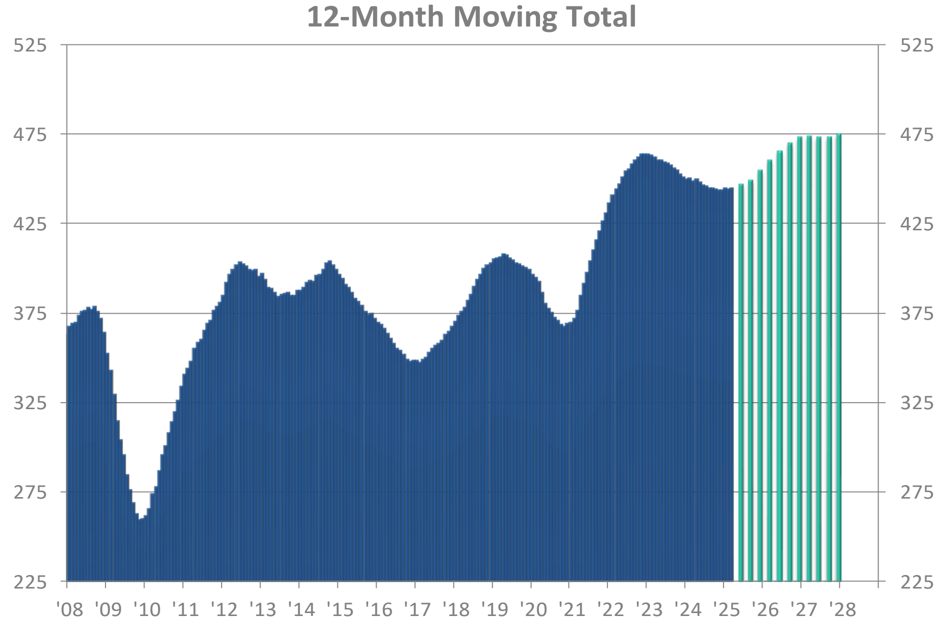
Recession

March 2025 Annual Growth Rate (12/12): -4.5%

March 2025 Annual Average (12MMA): 107.7

US Machinery New Orders

Growth Through 2026 May Be Driven More by Higher Prices Rather Than Volumes



Industry Outlook

2025: 2.4%

2026: 4.1%

2027: 0.4%

Outlook & Supporting Evidence

- The US Machinery New Orders data was revised by the US Census Bureau. The revision revealed that New Orders are recovering after a shallow recession. We adjusted the outlook downward to account for the revision. Mild growth is still probable given prior rise in leading indicators and relatively healthy corporate financials. However, prices may drive more of the rise rather than volume. Plan for Annual Production to rise mildly through 2026, then plateau for much of 2027.
- Onshoring is an upside risk, although plans set in motion by recent tariffs will likely take time to come to fruition.
- Inflation will bolster top-line figures, but there is risk of weaker volumes due to tariffs. PMPA members will need to prepare for higher prices and potential margin squeeze, depending on their exposure to tariffed imports.

Phase & Amplitudes

Phase A

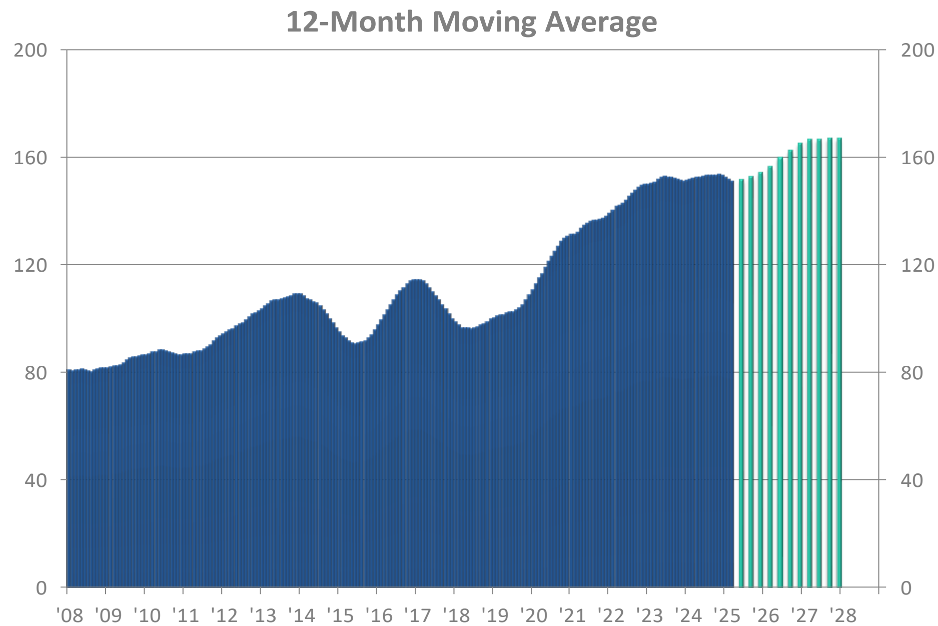
Recovery

March 2025 Annual Growth Rate (12/12): -0.9%

March 2025 Annual Total (12MMT): $444.7 billion

US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production Index

Production to Rise From Mid-2025 to 2027 Amidst Elevated Geopolitical Uncertainty



Industry Outlook

2025: 0.3%

2026: 7.0%

2027: 1.1%

Outlook & Supporting Evidence

- US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production in the 12 months through March was 0.8% below the same period one year ago. Production will decline mildly into mid-2025, rise through 2026, and plateau in 2027.
- Relatively robust rise in the World Uncertainty Index reflects rising geopolitical tensions and signals that Production will transition to rise in the near term, in line with our outlook.
- The US government defense budget is currently in negotiation. If the final budget presents significant funding for armament, this could pose an upside risk to the outlook.

Phase & Amplitudes

Phase D

Recession

March 2025 Annual Growth Rate (12/12): -0.8%

March 2025 Annual Average (12MMA): 151.1

INDICATORS

US Leading Indicators

	2Q25	3Q25	4Q25
ITR Leading Indicator™	🟢	🟢	🟢
ITR Retail Sales Leading Indicator™	🟢	🟢	🟢
US OECD Leading Indicator	🟢	🟢	🔴
US ISM PMI (Purchasing Managers Index)	🔴	🔴	🟢
US Total Capacity Utilization Rate	🟢	🟢	N/A

Green denotes that the indicator signals cyclical rise for the economy in the given quarter. Red denotes the opposite.

- Elevated uncertainty is causing some discomfort, but our collection of leading indicators suggests mild growth is probable for most major segments of the US economy this year.

- Prior mild rise in the ITR Retail Sales Leading Indicator™ suggests that consumer spending will move higher this year; we are carefully watching to see if the two-month slide in the Indicator is just noise or a precursor to potential retail spending weakness developing in 2026.

- Similarly, we have seen some tick downs in recent months in the ITR Leading Indicator™, the US OECD Leading Indicator, and the US ISM PMI (Purchasing Managing Index); however, overall the trends are rising and suggestive of mild industrial sector growth ahead.

While trade policy is uncertain, our general macroeconomic expectation for mild industrial sector growth, reemerging inflation, and elevated interest rates is unchanged. If you plan to finance business investments to capitalize on growth ahead, focus more on timing the payback period rather than trying to time a low in interest rates, as interest rates are likely to remain sticky.

Appendix — Market Definitions

US Industrial Production Index — Index of total industrial production in the United States; includes manufacturing, mining, and utilities. Source: Federal Reserve Board (FRB). Index, 2017 = 100, not seasonally adjusted (NSA).

North America Light Vehicle Production — Passenger car and light-duty truck production (classes 1-3) in the US, Canada, and Mexico combined, including transplants. A passenger car is a road motor vehicle, other than a motorcycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver). Source: WardsAuto. Measured in millions of units, NSA.

US Aircraft & Parts Production Index — This US industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing or assembling complete aircraft; (2) developing and making aircraft prototypes; (3) aircraft conversion (i.e., major modifications to systems); and (4) complete aircraft overhaul and rebuilding (i.e., periodic restoration of aircraft to original design specifications). It also includes manufacturing aircraft parts or auxiliary equipment and/or developing and making prototypes of aircraft parts and auxiliary equipment. Aircraft parts include such items as aircraft assemblies, brakes, fuselage wing tail assemblies, propellers and parts, wheels, airframe assemblies, engines, turbines, joints, targets, etc. Auxiliary equipment includes such items as crop dusting apparatus, armament racks, inflight refueling equipment, and external fuel tanks. Source: FRB. Index, 2017 = 100, NSA.

US Housing Starts — Total number of privately-owned housing units started in the United States. Start of construction occurs when excavation begins for the footings or foundation of a building. All housing units in a multi-family building are defined as being started when this excavation begins. Source: US Census Bureau. Measured in millions of units, NSA.

US Heavy-Duty Truck Production — This industry comprises establishments primarily engaged in (1) manufacturing heavy duty truck chassis and assembling complete heavy duty trucks, buses, heavy duty motor homes, and other special purpose heavy duty motor vehicles for highway use or (2) manufacturing heavy duty truck chassis only. Includes trucks weighing 14,000 pounds or more. Source: FRB, Index, 2017 = 100, NSA.

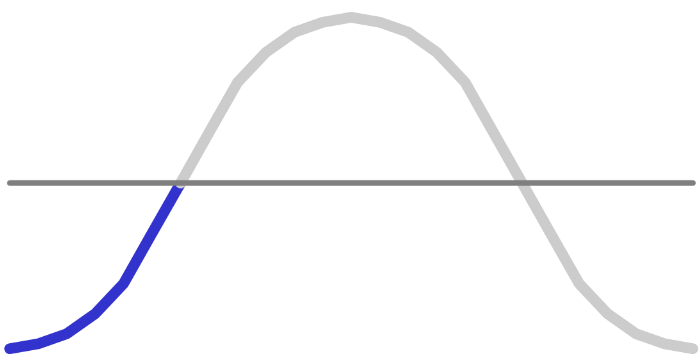
US Medical Equipment & Supplies Production Index — Medical equipment and supplies manufacturing index for the United States. Examples of products made by these establishments are surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, ophthalmic goods, dentures, and orthodontic appliances. Source: FRB. Index, 2017 = 100, NSA.

US Machinery New Orders — New orders for machinery in the United States. Industries in the machinery manufacturing subsector create end products that utilize mechanical force, for example, the application of gears and levers, to perform work. Some important processes for the manufacture of machinery are forging, stamping, bending, forming, and machining, which are used to shape individual pieces of metal. Processes such as welding and assembling are used to join separate parts together. Although these processes are similar to those used in metal fabricating establishments, machinery manufacturing is different because it typically employs multiple metal forming processes in manufacturing the various parts of the machine. Moreover, complex assembly operations are an inherent part of the production process. Source: US Census Bureau. Measured in billions of dollars, NSA.

US Ammunition, Small Arms, Ordnance, and Other Ordnance Accessories Production Index — Production index for the manufacture of ammunition, small arms, ordnance, and ordnance accessories. Includes bullets, shot, shells, ammunition cartridges, arming and fusing devices, bombs, detonators, missile warheads, torpedoes, guns, machine guns, cannons, small firearms, flame throwers, pellet guns, pistols, rifles, shotguns, rocket launchers, submachine guns, tank artillery, tranquilizer guns, etc. Source: FRB. Index, 2017 = 100, NSA.

Management Objectives™

Phase



A

1. Scrupulously evaluate the supply chain
2. Model positive leadership (culture turns to behavior)
3. Start to phase out marginal opportunities (products, processes, people); repair margins
4. Perform due diligence on customers and extend credit
5. Be on good terms with a banker; you will need the cash more now than in any other phase
6. Invest in customer market research; know what they value and market/price accordingly
7. Hire key people and implement company-wide training programs ahead of Phase B
8. Allocate additional resources to sales and marketing
9. Invest in system/process efficiencies
10. Make opportunistic capital and business acquisitions; use pessimism to your advantage

Management Objectives™

1 Ensure quality control keeps pace with increasing volume

2 Invest in workforce development: hiring, training, retention

3 Ensure you have the right price escalator; space out price increases

4 Maximize your profit margins through differentiation; stand out from the crowd and set yourself apart

5 Use improved cash flow to strategically position the business to beat the business cycle

6 Expand credit to customers

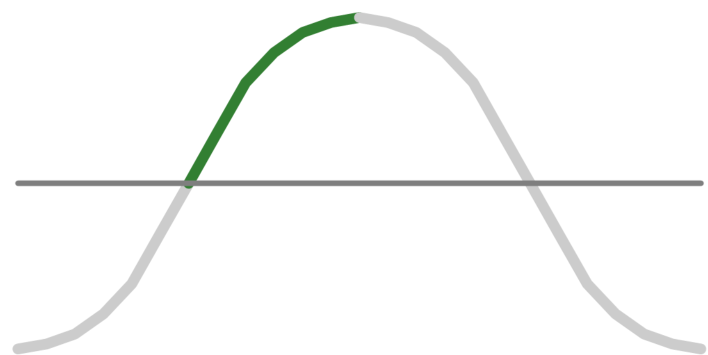
7 Improve corporate governance (rent a CFO; establish a board of advisors or board of directors)

8 Communicate competitive advantages; build the brand

9 Query users for what they want and what is important to them

10 Sell the business in a climate of maximum goodwill

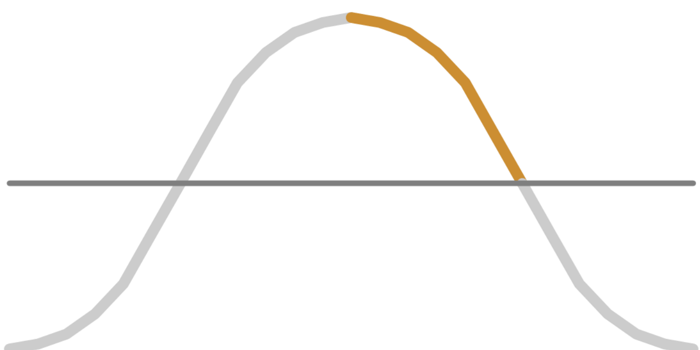
Phase



B

Management Objectives™

Phase



C

1 Know if your markets are headed for a soft landing or a hard landing

2 Cash is king; beware of unwarranted optimism

3 Stay on top of aging receivables

4 Revisit capital expenditure plans

5 Lose the losers: if established business segments are not profitable during this phase, eliminate them

6 Use competitive pricing to manage your backlog through the coming slowdown

7 Avoid committing yourself to long-term expenses at the top of the price cycle, but lock in revenue

8 Go entrepreneurial and/or counter-cyclical

9 Evaluate your vendors for financial strength; if needed, look for additional vendors as a safety net

10 If the cycle looks recessionary, cross-train key people to prepare for workforce attrition/reduction

Management Objectives™

1 Implement aggressive cost-cutting measures

2 Offer alternative products with a lower cost basis

3 Perform due diligence on acquisitions while valuations are falling

4 Reduce advertising as consumers become more price conscious

5 Enter or renegotiate long-term leases

6 Negotiate labor contracts

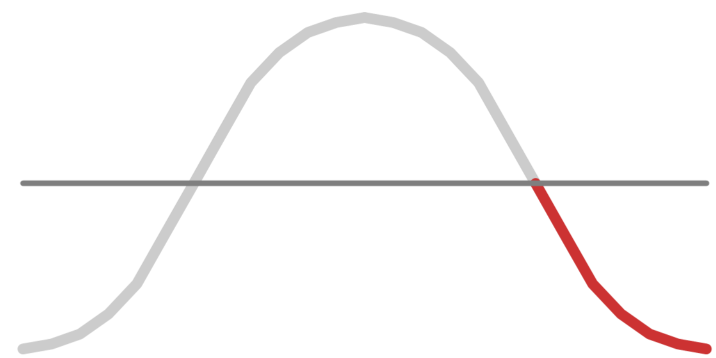
7 Consider capital equipment needs for the next cycle

8 Tighten credit policies

9 Develop programs for advertising, training, and marketing to implement in Phase A

10 Lead with optimism, remembering that Phase D is temporary

Phase



D